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PPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO
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KENT B. CHAMBERS HAMILTON & TERRILE, LLP P.O. BOX 203518 AUSTIN, TX 78720		EXAMINER		
			TODD, GREGORY G	
AUSTIN, IX	18720		ART UNIT	PAPER NUMBER
	•	•	2157)]

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.					
	Application No.	Applicant(s)				
Office Action Summary	09/440,246	GHEITH, AHMED				
Office Action Summary	Examiner	Art Unit				
The MAILING DATE of this communication and	Gregory G Todd	2157				
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply						
A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply - If NO period for reply is specified above, the maximum statutory period w - Failure to reply within the set or extended period for reply will, by statute, - Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). Status	36(a). In no event, however, may a reply be within the statutory minimum of thirty (30) fill apply and will expire SIX (6) MONTHS ficause the application to become ABANDO	e timely filed days will be considered timely. rom the mailing date of this communication. NED (35 U.S.C. § 133).				
1)⊠ Responsive to communication(s) filed on 25 F	ebruary 2003					
-	is action is non-final.					
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is						
closed in accordance with the practice under a Disposition of Claims	Ex parte Quayle, 1935 C.D. 11	I, 453 O.G. 213.				
4) Claim(s) 1-7,9,11-15,17-19,21-24,26-40 and 44-46 is/are pending in the application.						
4a) Of the above claim(s) is/are withdrawn from consideration.						
5) Claim(s) is/are allowed						
6)⊠ Claim(s) <u>1-7,9,11-15,17-19,21-24,26-40 and 44-46</u> is/are rejected.						
7) Claim(s) is/are objected to.						
8) Claim(s) are subject to restriction and/or Application Papers	r election requirement.					
9) The specification is objected to by the Examiner.						
10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.						
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
11)☐ The proposed drawing correction filed on is: a)☐ approved b)☐ disapproved by the Examiner.						
If approved, corrected drawings are required in reply to this Office action.						
12)☐ The oath or declaration is objected to by the Examiner.						
Priority under 35 U.S.C. §§ 119 and 120						
13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).						
a) ☐ All b) ☐ Some * c) ☐ None of:						
1. Certified copies of the priority documents have been received.						
2. Certified copies of the priority documents have been received in Application No						
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. 						
14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).						
 a) ☐ The translation of the foreign language pro 15)☐ Acknowledgment is made of a claim for domesting 	• •					
Attachment(s)						
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s)		nary (PTO-413) Paper No(s) nal Patent Application (PTO-152)				

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DETAILED ACTION

Response to Amendment

- 1. This is a second office action in response to applicant's amendment filed, 25 February 2003, of application filed, with the above serial number, on 15 November 1999 in which claims 1-7,9,11-15,17,19,21-24,26-29, 31-32, 34, 36, 38-39 and 44 have been amended, claims 45-46 have been added, claims 30, 33, 35, 37, 40 and 44 have not been changed and claims 8, 10, 16, 18, 20, 25, and 41-43 have been cancelled. Claims 1-7,9,11-15,17,19,21-24,26-40 and 44-46 are therefore pending in the application.
- 2. The amendment has numerous flaws associated with the claims. The examiner has found many inconsistencies with the amended claims and the applicant is advised to submit any corrections deemed appropriate, which the examiner has not determined or overlooked somehow. Examples of errors found are:

Amended claim 18 is cancelled.

Amended claim 19 does not fully represent portions of the original claim.

Amended claims 30 and 40 are not amended.

Original claims 32 and 44 are amended.

Claim Objections

3. Claim 46 objected to because of the following informalities: In line 7, "means for means for" is redundant. Appropriate correction is required.

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4. Claim 6 objected to because of the following informalities: In line 10, "system" is suggested to be replaced with --systems--. Appropriate correction is required.

- 5. Claim 9 is objected to because of the following informalities: In line 2, "wherein wherein" is redundant; "uniform resource locator" is not well known in the art.

 Appropriate correction is required.
- 6. Multiple claims are objected to because of the following informalities: The terminology of a client computer, or client computing, system should be static throughout the claims. Appropriate correction is required.

Claim Rejections - 35 USC § 112

- 7. The following is a quotation of the second paragraph of 35 U.S.C. 112:
 The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
- 8. Claim 45 recites the limitation "the described dynamically generated electronic file "in line 18. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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- 2. Claims 1-7, 9, 11-13, 17, 19, 21-24, 26-31, 33, 36-40, and 44-45 are rejected under 35 U.S.C. 102(e) as being anticipated by Lambert et al (hereinafter "Lambert", 6,038,601).
- 3. As per Claim 45, Lambert discloses a dynamic content caching and retrieval system that facilitates reusability of dynamically generated electronic files, wherein Lambert discloses:
 - a processor (at least col. 3, lines 37-40);
- a computer readable medium coupled to the processor (at least col. 3, lines 44-51);

dynamically generated electronic files stored in a storage medium, each dynamically generated electronic file includes an identifier that is derived from dynamically generated presentation information stored in the file (eg. the ICEXPIRE tag included in the file) (at least col. 12, lines 38-60; col. 13, lines 30-45); and

a computer readable representation received by the system from a client computing system, the computer readable representation having a presentation state signature based on the presentation state defined, at least in part, by one or more parameters (link) selected by a user interacting with a file displayed by the client computing system that are useful to identify one of the dynamically generated electronic files in which stored presentation information is associated with the presentation state upon which the signature is based (URL link selected by the client for the new page) (at least col. 15, lines 34-40, 59-66);

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wherein the computer readable medium includes a routine executable by the processor to determine if the presentation state signature of the computer readable representation identifies one of the dynamically generated electronic files stored in the memory of the system, retrieving the described dynamically generated electronic file and serving the retrieved file to the client computer system (at least col. 5, lines 55-60).

4. As per Claim 1.

- a subsequent presentation state computation routine operable to cause at least one subsequent presentation state to be computed based on the presentation state signature (a child page URL being pre-fetched from an initial parent page) (at least col. 15, lines 34-40);

- a presentation state signature computation routine operable to determine a presentation state signature for one or more subsequent presentation states (hashing a present or future URL) (at least col. 20, lines 43-60).

Lambert discloses pre-fetching child pages from a current page a user requests and looking up the child page URL in a hash table and therefore subsequent URL's are previously hashed by the server with a capable signature computation routine.

5. As per Claim 2.

- the subsequent presentation state computation routine and the presentation state signature computation routine are encoded in the computer readable medium as instructions executable on the processor, the computer readable medium being one of a magnetic storage medium, an optical storage medium, and a communications medium conveying signals encoding the instructions (at least Fig. 1B).

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6. As per Claim 3.

- at least a portion of the presentation information is encoded in a markup language (at least col. 15 line 63 - col. 16 line 2).

7. As per Claim 4.

- the markup language is Hypertext Markup Language (HTML) (at least col. 15 line 63 - col. 16 line 2).

8. As per Claim 5

- a presentation information computation routine (algorithm) operable to compute subsequent presentation information (child pages) based upon the at least one subsequent presentation state (at least col. 20, lines 62-67; col. 16, lines 28-39).

9. As per Claim 6

- a plurality of additional computer readable representations from one or more client computing systems, each of the computer readable representations having a presentation state signature based on a presentation state defined, at least in part, by one or more parameters (link) selected by a user interacting with a file displayed by one of the client computing systems that are useful to identify one of the dynamically generated electronic files in which stored presentation information is associated with the presentation state upon which the signature is based (URL link selected by the client for the new page) (at least col. 15, lines 34-40, 59-66);

wherein the routine is further executable by the processor to determine if the presentation state signatures of the computer readable representations identify one of the dynamically generated electronic files stored in the memory of the system, retrieving

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the described dynamically generated electronic files, and serving the retrieved files to the client computer system from which the computer readable representation was received (at least col. 5, lines 55-60).

10. As per Claim 7.

- a subsequent presentation state computation routine operable to cause at least one subsequent presentation state to be computed based on each presentation state signature (child page of the child page, level 2, etc.) (at least col. 16, lines 4-11; col. 20 line 62 - col. 21 line 26)

a presentation state signature computation routine operable to determine a presentation state signature for each subsequent presentation state (child page URL (second presentation state) is looked ahead on having already been hashed and being in the hash table) (at least col. 20, lines 43-60; col. 16, lines 4-11).

11. As per Claim 9.

- the computer readable representation is universal resource locator that includes a filename and state information for one of the dynamically generated electronic files (domain name of hashed URL and child html page) (at least col. 16, lines 4-11; col. 20, lines 43-60).

12. As per Claim 10.

- at least one of the plurality of files includes at least one of the at least one subsequent presentation state (child page URL in hash table) and a presentation state signature from the at least one subsequent presentation state (at least col. 16, lines 4-11; col. 20, lines 43-60).

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13. As per Claim 11.

- a file cache operable to store the dynamically generated electronic files (at least col. 34, lines 22-29).

14. As per Claim 12.

- the file cache is a file server computer system (at least col. 34, lines 22-29).

15. As per Claim 13.

- the presentation state signature computation routine uses a hashing function to determine the presentation state signature (see above rejection for Claim 1) (at least col. 20, lines 43-60).

16. As per Claim 17.

- each computer readable representation is a Universal Resource Locator (URL) comprising the presentation state signature based on the presentation state (associating hash value in hash table with URL) (at least col. 20, lines 43-67; col. 16, lines 28-39).

17. As per Claim 19.

- the computer readable medium further includes state information that at least one subsequent presentation state includes version information of the file displayed by the client computing system (eg. when page was last accessed) (at least col. 34 line 61 - col. 35 line 12).

18. As per Claim 21.

- a file cache and a look-ahead manager, the look-ahead manager operable to perform at least one of:

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determining if the file cache includes a dynamically generated electronic file having presentation information characterized by the presentation state signatures for one or more subsequent presentation states (at least col. 5, lines 55-60);

causing a presentation information computation routine to compute subsequent presentation information based upon one or more subsequent presentation states (lookahead algorithm computing mutli-level child pages) (at least col. 20, lines 5-34, 62-67).

19. As per Claim 22.

- the determining if the file cache includes a dynamically generated electronic file includes searching the file cache for a file having a filename (domain name of hashed URL) including the presentation state signature from the computer readable representation (at least col. 16, lines 4-11; col. 20, lines 43-60).

20. As per Claim 23.

- a web server application operable to receive the computer readable representation (inherently, an application is used on a caching server, see col. 6, lines 25-55 for caching server details) and to serve the retrieved file to the client computer system (at least col. 5, lines 55-60).

21. As per Claim 24.

- the routine comprises a web server application (at least col. 5, lines 55-60).

22. As per Claim 26.

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- the client computer system is one of a plurality of interconnected client computer systems operating in a distributed computing environment and coupled to the server computer system (at least col. 2, lines 24-34).

23. As per Claim 27.

- the plurality of interconnected client computer systems and the server computer system are coupled via a network (at least col. 2, lines 24-34).

24. As per Claim 28.

- network is the Internet and each of the files are web pages (at least col. 1, lines 13-17).
- 25. As per Claim 29, Lambert discloses a method of caching and retrieving cached dynamically generated files that each include presentation information characterized by respective presentation states, the file operable to be provided by an application running on a server computer system to at least one client computer system, wherein Lambert discloses:

receiving a file request that includes information based on selections of a user interacting with a web page using at least one client computer system (at least col. 5, lines 55-60);

determining whether the file request identifies one of the cached dynamically generated files (at least col. 5, lines 55-60);

retrieving the dynamically generated file identified by the file request and transmitting the file to the at least one client computer system if the file exists in the cache (at least col. 5, lines 55-60);

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computing presentation information based on the information in the file request when a dynamically generated file does not exist in the cache (at least col. 6, lines 25-38);

saving the computed presentation information in a file in the cache (local storage), thus creating a dynamically generated file, and transmitting the dynamically generated file to the at least one client computer system (at least col. 12, lines 38-48).

26. As per Claim 30.

- the file request includes at least one of a filename based on the first state (domain name of page), and first state information (at least col. 16, lines 4-11; col. 20, lines 43-60).

27. As per Claim 31.

- the file request includes a filename computed from the information based on selections by a user interacting with a web page using a hash function (at least col. 20, lines 43-60).

Lambert discloses pre-fetching child pages from a current page a user requests and looking up the child page URL in a hash table, which would implicitly mean that the pre-fetched, and therefore subsequent, URL's are previously hashed with a hash function.

28. As per Claim 33.

- the file request is a URL (at least col. 20, lines 62-67; col. 16, lines 28-39).
- 29. As per Claim 36.

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- computing at least one subsequent state based on the selections by a user interacting with a web page (at least col. 15, lines 59-66);

computing a signature of the at least one subsequent state based on at least one subsequent state (hashing a present or future URL) (at least col. 20, lines 43-60); and

including the signature of the at least one subsequent state and the at least one subsequent state in the presentation information (associating hash value in hash table with the URL) (at least col. 20, lines 43-67; col. 16, lines 28-39)..

30. As per Claim 37.

- method encoded in a computer readable medium as instructions executable on a processor, the computer readable medium being one of a magnetic storage medium, an optical storage medium, and a communications medium conveying signals encoding the instructions (at least Fig. 1B).

31. As per Claim 38.

Dynamically generated files created in accordance with the method of claim 29 (at least col. 16, lines 49-60; col. 15, lines 41-52; col. 16 line 66 - col. 17 line 10).

32. As per Claim 39.

- at least a portion of the presentation information of each dynamically generated file is encoded in a markup language (at least col. 15 line 63 - col. 16 line 2).

33. As per Claim 40.

- the markup language is one of Hypertext Markup Language (HTML) (at least col. 15 line 63 - col. 16 line 2).

34. As per Claim 44.

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- the web page is a product configuration web page and the file request is a Universal Resource Locator (URL) that includes state information comprising information based on the user configuration selections (associating hash value in hash table with URL) (at least col. 20, lines 43-67; col. 16, lines 28-39).

Claim Rejections - 35 USC § 103

- 35. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 36. Claims 34-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lambert et al (hereinafter "Lambert", 6,038,601) in view of Colby et al (hereinafter "Colby", 6,006,264).

Lambert discloses a server determining whether a file exists in a cache (at least col. 5, lines 55-60) and if not it computes the presentation information from another server. Lambert does not disclose the server determining cache files from a file not found error such as an HTTP error 404. However, the use and advantages for using such an error detection is well known to one skilled in the art at the time the invention was made as evidenced by the teachings of Colby (at least Colby col. 12, lines 6-13). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the error detection of Colby's server with Lambert's file-detecting cache server because this would enhance the probability of correctly

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determining if the web page is in the server's cache, and using an http 404 error is a commonly used method of telling a system a page is no longer valid on the internet; with Lambert's server needing some way of determining if the web-page to pre-fetch is already on the system, so a common internet method of determining if a file is on a server is to query the page and if an error is detected in the page retrieval, report it to the requesting system. Thus, Lambert's server would detect the error and know that the page is no longer valid and attempt to re-fetch it from another server.

37. Claims 14-15 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lambert et al (hereinafter "Lambert", 6,038,601) in view of Mattis et al (hereinafter "Mattis", 6,289,358).

Lambert discloses using a hash table to look up a document's URL (presentation information state and signature) (at least col. 20, lines 43-60). Lambert does not explicitly disclose using a one-way hash function such as Snefru, N-Hash, MD5, Secure Hash Algorithm (SHA), RIPE-MD, or HAVAL. However, the use and advantages for using such a hashing function is well known to one skilled in the art at the time the invention was made as evidenced by the teachings of Mattis (at least Mattis col. 28, lines 50-58). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement Mattis' one-way URL hashing function (MD5) with Lambert's hashing because this would enhance the expandability and compatibility of Lambert's system and also utilize the different advantages of using the one-way hash function, thus allowing multiple documents to be quickly and easily stored and looked up in the Lambert hash table using the URL-specific hash value.

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38. Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lambert et al (hereinafter "Lambert", 6,038,601).

Lambert discloses a dynamic content caching and retrieval system that facilitates reusability of cached dynamically generated electronic files, wherein Lambert discloses:

means for receiving a file request that includes information based on selections of a user interacting with a web page using at least one client computer system;

means for determining whether the file request identifies one of the cached dynamically generated electronic files (at least col. 5, lines 55-60);

means for retrieving the dynamically generated electronic file identified by the file request and transmitting the file to the at least one client computer system if the file exists in the cache (at least col. 5, lines 55-60);

means for computing presentation information based on the information in the file request when a dynamically generated file does not exist in the cache (sending request to retrieve content) (at least col. 5, lines 55-60); and

Lambert does not explicitly disclose saving a previously non-cached document in the cache as a file. However, the caching server will implicitly cache most content it will receive. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the use of the caching server caching the content a user has requested and saving it in a file for later use because this is the primary use of a caching server and if a user requests a file the caching server does not contain it would be a primary benefit for other users to have this file/page in the cache

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as well as this would add to the weighting system of Lambert (at least col. 16, lines 19-21) as having more probability of being traversed by another user at a later time.

Response to Arguments

- 39. Applicant's arguments filed 25 February 2003 have been fully considered but they are not persuasive. The applicant adds new independent claims 45 and 46. Applicant argues, substantially, that Lambert does not teach or suggest a) a system that facilitates reusability of dynamically generated electronic files as recited in newly added claim 45; b) the limitations recited in the newly added claim 45; c) a method of caching and retrieving cached dynamically generated files as recited in newly amended claim 29; d) a file request that includes information based on selections of a user interacting with a web page...and determining whether the file request identifies one of the cached dynamically generated files as recited in newly amended claim 29; and e) saving the computed presentation information in a file in the cache, thus creating a dynamically generated file, and transmitting the dynamically generated file to the at least one client computer system as recited in newly amended claim 29.
- 40. In response to a); The original claim language does not limit Lambert's system to specifically include the files being generated dynamically. However, Lambert discloses that the lookahead requests are generated from a given page through his algorithm process (at least col. 16, lines 49-60; col. 15, lines 41-52). The files are generated dynamically as the user requests new pages and links, when the algorithm dynamically

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restarts the process all over again from the new page (at least col. 16 line 66 - col. 17 line 10).

- 41. In response to b); See above rejection for newly added and rejected Claim 45.
- 42. In response to c); Similarly to a), Lambert discloses an algorithm that dynamically changes and generates requests from a given position of a user with respect to a certain page. Lambert further suggests that most caching is done based on past user usage of the network, meaning that any configuration of a web page, any web page made by a user being cached onto the server and dynamically changed with respect to a set period of time of being on the server (at least col. 15, lines 28-33).
- 43. In response to d); Lambert's system discloses the user interacting with a web page by requesting a page from their browser's current page, the request including information, such as a weight, indicated with the link the user has selected (at least col. 15, lines 59-61; col. 16, lines 28-39) and then retrieving content from the server if it is cached or retrieve the content from the original source if it is not cached (at least col. 5, lines 55-60).
- 44. In response to e); Lambert clearly discloses saving and placing the computed presentation information in a file in the cache local storage, thus creating a dynamically generated file as in a) above, and transmitting/returning the content to the requesting client (at least col. 12, lines 38-48).

Conclusion

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45. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

46. Chen et al, Jiang et al, Brown et al, Mogul, Becker et al, Kavner, Berstis, Thacker et al, Parthasarathy et al, Nelson et al in addition to newly cited Eilbott et al and Gupta et al are cited for disclosing pertinent information related to the claimed invention.

Applicants are requested to consider the prior art reference for relevant teachings when responding to this office action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory G Todd whose telephone number is (703)305-5343. The examiner can normally be reached on Monday - Friday 9:00am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (703)308-7562. The fax phone numbers for the organization where this application or proceeding is assigned are (703)746-7239 for regular communications and (703)746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

gt

May 14, 2003

SALEH NAJJAR PRIMARY EYAMINER

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